

# Volume of Pyramids and Cones

### **Theorem 12.9 Volume of a Pyramid**

The volume,  $V$ , of a pyramid is given by

$$V = \frac{1}{3} Bh$$

where  $B$  is the area of the base and  $h$  is the height

**Theorem 12.10 Volume of a Cone**

The volume,  $V$ , of a cone is given by

$$V = \frac{1}{2} Bh = \frac{1}{3} \pi r^2 h$$

where  $B$  is the area of the base,  $h$  is the height, and  $r$  is the radius of the base.

Practice: p. 617 (1 - 9, 14, 16)

Homework : Extra Practice 12.5 (1, 2, 5 - 8)  
Worksheet Volume

**Frustum** - a frustum of a pyramid or cone is the part of the solid that lies between the base and a plane that is parallel to the base.

Below are some examples of frustums.

## **Volume of a Frustum**

The volume of a frustum,  $V$ , is

$$V = \frac{1}{3} h (B_1 + B_2 + \sqrt{B_1 B_2})$$

p. 619 (31 - 33)

